



Kathleen S. O'Neill
 Chief, Transportation, Energy and Agriculture Section
 Antitrust Division
 United States Department of Justice
 450 5th St NW, Suite 8000
 Washington, DC 20530

Dear Ms. O'Neill,

On behalf of Friends of the Earth, we respectfully submit the following comments to the Department of Justice regarding its Proposed Final Judgement of Bayer AG's acquisition of Monsanto Company. Friends of the Earth urges the Department of Justice to block the proposed merger. Barring outright denial of the merger, Friends of the Earth urges the Department of Justice to strengthen the current remedy by requiring the divestment of all digital agriculture assets or by requiring amendments to Climate FieldView's Privacy Policy in order to protect farmers from price discrimination and limited options— all at the price the company sets, free from competition.

Friends of the Earth is an environmental organization that defends the environment and champions a healthy and just world. We represent over 1.5 million members and supporters in all 50 states and are part of an international federation of organizations working in 74 countries.

The Department of Justice has taken a narrow view of the Bayer-Monsanto merger. The proposed remedy views Bayer's divestitures as part of strictly defined markets without taking into account how the products Bayer and Monsanto manufacture are marketed, licensed and sold.

The Complaint, and therefore the basis of the Proposed Final Judgement, is based on several fundamental assumptions that contradict the best available data. First, on page seven of the Complaint, the Department of Justice claims that "[Genetically modified] seeds provide farmers with considerable savings in labor and expense, increase yields, and reduce soil erosion by eliminating the need for tilling fields. Thus, a vast majority of farmers do not view conventional seeds as a reasonable substitute."

In the U.S. adoption of genetically engineered crops has grown significantly.ⁱ Data show that the herbicide-resistant seeds that Bayer and Monsanto sell do not save farmers' money, and they do not reduce pesticide use.ⁱⁱ A 2016 study found that herbicide use has significantly increased since the adoption of herbicide-resistant seeds, in large part due to increased use of glyphosate.ⁱⁱⁱ Data show that total herbicide use on soybeans increased by 28 percent from 1998 to 2011^{iv} with the greatest increase occurring from 2008 to 2011.^v Overuse of glyphosate has led to new production and economic problems for farmers due to the emergence of glyphosate-resistant weeds that affect an estimated 60 million acres of U.S. farmland.^{vi} Additionally, recent studies have found that herbicide-resistant seeds in the United States have not resulted in increased yield when compared to non-genetically modified varieties grown in Europe.^{vii}

The Department of Justice should not view herbicide and insecticide use figures in a vacuum. Bayer and Monsanto both aggressively market and sell products that increase pesticide use. The seed industry has dramatically consolidated in the past three decades. In 1985, the five largest companies (Monsanto, Dow, DuPont, Syngenta and Bayer) controlled approximately ten percent of the global seed market. By 2000, those companies controlled nearly twenty percent, and by 2016, they controlled nearly fifty-five percent of the global seed market.^{viii} If the proposed merger is approved, the resulting company will control a larger percent of the market.

The claim that a “vast majority” of farmers do not believe conventional seeds are a reasonable substitute is also overstated. Seed choice is increasingly constricted, loans to farmers are often based on the condition of using particular seed technology packages, and seed innovation has been on the decline since industry consolidation accelerated in the late 90’s.^{ix}

A poll of nearly 1,000 U.S. farmers conducted earlier this year by a coalition of farm groups found that eighty percent of respondents have been paying steadily higher prices for farm inputs over the past five years, while sixty-five percent said that they have less bargaining power for seeds and chemicals.^x This situation is especially concerning given the immense economic pressure that American farmers are currently experiencing. USDA estimates that 82 percent of U.S. farm household income to come from off-farm work this year, up from 53 percent in 1960.^{xi}

It is concerning that the Department of Justice would assume, as a matter of course, that the rapid and sustained adoption of genetically modified seeds from Bayer and Monsanto is due entirely to realized benefits by farmers. Rather, lack of choice, aggressive marketing, and conditional loans have driven farmers’ adoption of genetically modified seeds.

These flawed assumptions underlie the foundations of the Proposed Final Judgement. They do not accurately reflect the current farming sector and ignore the power that the top firms in such a consolidated industry have over farmers and retailers.

The Department of Justice’s proposed remedy will maintain the industry status-quo while protecting competition in just a few very specific areas. While requiring Bayer to divest some of its assets, such as its vegetable seed business, may help prevent certain price increases, it does nothing to remedy the underlying problem of a combined Bayer and Monsanto. The Proposed Final Judgement will protect the companies’ integrated platforms (such as the combination of seeds, chemicals and digital agriculture products) while granting BASF Corporation one of its own.

On page 19 of the Complaint, the Department of Justice notes how, “Without the merger, this competition would intensify as both companies pursue what the industry refers to as integrated solutions – combinations of seeds, traits and crop protection products, supported by digital-farming technologies and other services. Although integrated solutions are still evolving, it is widely believed that only the Big Four companies – each with its own unique strengths – will be able to offer fully integrated solutions to farmers. With this merger, the competition would be lost.”

In the Proposed Final Judgement, the Department of Justice has missed how locking farmers into integrated systems owned by just four companies (Dow-DuPont, Syngenta-ChemChina, Bayer-Monsanto & BASF) will lead to significantly decreased bargaining power for farmers. The preservation of these integrated solutions is likely to be a key driver reducing choices for farmers and competition in the industry.

A combined Bayer-Monsanto will have an ability to create an unprecedented platform of seeds, herbicides, fungicides, insecticidal seed treatments and digital agriculture, which is deeply concerning for farmers. According to the survey mentioned above ninety-four percent of the nearly 1,000 farmers surveyed are concerned about the merger. Ninety-two percent of respondents are concerned that a combined Bayer and Monsanto will use its dominance in one area (such as digital agriculture) to push for higher sales of other products. Ninety-two percent of respondents are concerned about Bayer and Monsanto owning data about farming practices. Eighty-nine percent of respondents are concerned about increased pressure for chemically dependent farming, despite more than half of respondents being conventional farmers.^{xii}

The Department of Justice’s remedy does not address any of these concerns. Farmers are concerned about combined platforms, which will only get stronger as Bayer and Monsanto integrate their product portfolios. They are concerned about companies collecting data, and the new company will have more capacity to do this than ever before. Bayer-Monsanto will double down on packaging seeds with pesticides, and the result will mean more pressure for chemically intensive agriculture.

Attempting to give BASF its own seed and pesticide platform does not grant the company the ability to compete. It certainly does not offer farmers an alternative to the current industry standard. Because the Proposed Final Judgement fails to adequately address concerns of family farmers, Friends of the Earth urges the Department of Justice to reverse its conditional approval of the merger and block the Bayer-Monsanto merger.

If the Department of Justice chooses to not block the Bayer-Monsanto merger, Friends of the Earth urges the Department of Justice to adopt the following remedies.

Require Monsanto to Divest its Digital Agriculture Platform, Climate FieldView

The current requirement, that Bayer divest Xarvio to BASF in the United States will not adequately preserve competition. Bayer never released Xarvio in the United States, and Climate FieldView ultimately provides plenty of tools for Bayer and Monsanto to exert undue influence on farmers and farming communities.^{xiii}

Month to month, Monsanto's Climate FieldView grows more powerful by partnering with digital agriculture start-ups. The platform has grown to include 23 individual partners.^{xiv} Leveraging these partnerships, Bayer and Monsanto have the ability to become similar to the Microsoft of the 90's, controlling the future of the emerging digital agriculture industry.

In 2017, Monsanto set a goal of collecting data from 25 million premium acres.^{xv} By the end of the year, the company reached 35 million acres.^{xvi} Monsanto is expecting 50 million premium acres across the globe by the end of its 2018 fiscal year.^{xvii}

A combined Bayer-Monsanto will be well-positioned to continue leveraging new digital agriculture start ups to sell more of its products. With the combinations of Monsanto's existing product portfolio and Bayer insecticide businesses, Climate FieldView will likely begin incorporating a wider range of digital agriculture products. This advanced digital agriculture platform will also start to be bundled with more and more products as Bayer and Monsanto's offerings expand horizontally.

The combination of Monsanto's seed and herbicide business with Bayer's insecticide and seed treatment business will allow Climate FieldView to aggressively market nearly any possible farm input to farmers. With some retailers handing out free copies of Climate FieldView to reach their rebate quotas, the rapid expansion of such an extensive platform will likely lead to expanded market share for a combined Bayer-Monsanto.^{xviii}

Given how such a vast and profitable product portfolio will mesh with Climate FieldView to create a true, anticompetitive one-stop-shop for many farmers, we urge the Department of Justice to require that Monsanto divest Climate FieldView.

Require that Monsanto Update the Privacy Policy of Climate FieldView to Allow Farmers to Easily Remove Data From the Platform

Should a combined Bayer-Monsanto retain Climate FieldView, we urge the Department of Justice to require that the company update the Privacy Policy of Climate FieldView to allow farmers to have more control over their data.

Under the existing policy, farmers own the data that comes from their farm.^{xix} For example, a farmer would own a given measurement of soil moisture on their property. Any user of Climate FieldView can, in theory, request that Monsanto delete this data from its own databases and systems.

However, a user cannot request that Monsanto delete their data used to create "Aggregated Information." According to the Climate Corporation, "'Aggregated Information' is a combination and analysis of information from multiple sources that helps identify or creates trends, benchmarks, summary metrics, or predictive algorithms, provided that we take reasonable steps to prevent a specific individual or the individual's data from being identified. We may create Aggregated Information from information that other customers choose to share with us, along with Your Information."^{xx}

Monsanto currently changes the prices of its products between different regions of the United States based on certain conditions. The granular data that Bayer and Monsanto collect could lead to differences in prices even amongst neighbors.^{xxi} This system may be complicated further when each farm receives a different pricing scheme (rather than simply buying farm inputs from a distributor).

The definition of "Aggregated Information" is remarkably broad. In addition, users must request, by email, which *specific data* they wish for Monsanto to delete.^{xxii} Given the complexity of the data Climate FieldView collects, and in conjunction with the "Aggregated Information" restrictions, this is a very high barrier to users opting out of the platforms.

Should the Department of Justice move forward in allowing the Bayer-Monsanto merger to proceed and refuse to require the divestment of Climate FieldView, we urge the Department of Justice to require that Bayer and Monsanto amend the Privacy Policy of Climate FieldView to allow users to delete all of their data from the platform. This would allow users to remain competitive with other users of digital agriculture services.

Ultimately, the Department of Justice must block the merger between Bayer and Monsanto. The resulting lack of choice and increased prices for farmers and consumers that will likely follow will be too much to bear given the current economic struggles of rural communities across the country.

The Department of Justice has failed to recognize how a combined Bayer and Monsanto would have too much vertical power over farmers, which will only perpetuate the lack of bargaining power farmers already experience. This stranglehold over American farmers and food production will put too much responsibility in the hands of only one company.

Should the Department of Justice not block this merger, the Department must at least ensure that the newest tools for tightly held, integrated platforms are not used to eliminate competition and lock farmers into the use of products made by only one company. To follow the current Proposed Final Judgement would be to fail America's farmers, food supply, families and the environment.

Please contact Friends of the Earth if you have any questions.

Sincerely,

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ⁱ Perry, E. D., Ciliberto, F., Hennessy, D. A., & Moschini, G. (2016). Genetically engineered crops and pesticide use in US maize and soybeans. *Science advances*, 2(8), e1600850.

ⁱⁱ Perry, E.D., Ciliberto, F., Hennessy, D. A. & Moschini, G. (2016). Genetically engineered crops and pesticide use in U.S. maize and soybeans. *Science Advances*, 2(8). Doi: 10.1126/sciadv.1600850

ⁱⁱⁱ *Id* at i.

^{iv} *Id* at i.

^v *Id* at i.

^{vi} Mortensen, D. A., Egan, J. F., Maxwell, B. D., Ryan, M. R., & Smith, R. G. (2012). Navigating a critical juncture for sustainable weed management. *BioScience*, 62(1), 75-84.

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^{viii} Bonny, S. (2017). *Corporate Consolidation and Technological Change in the Global Seed Industry*. Retrieved from: www.mdpi.com/2071-1050/9/9/1632/pdf

^{ix} Fernandez-Cornejo, J. & Schimmelpfennig, D. (2004). *Have Seed Industry Changes Affected Research Effort?* Retrieved from: <https://www.ers.usda.gov/amber-waves/2004/february/have-seed-industry-changes-affected-research-effort/>

^x Stucke, M. E. & Grunes, A. P. (2018). *An Updated Antitrust Review of the Bayer Monsanto Merger*. Retrieved from: <https://1bps6437gg8c169i0y1drtgz-wpengine.netdna-ssl.com/wp-content/uploads/2018/03/2018-FINAL-White-Paper-with-PAN-3-7-2018.pdf>

^{xi} Radke, A. (2018, March 28). 82% of U.S. ag family income comes from off-farm jobs. *BEEF Daily*. Retrieved from: <https://www.beefmagazine.com/farm-succession/82-us-ag-family-income-comes-farm-jobs>

^{xii} *Id* at ix.

^{xiii} Xarvio. *Field Manager*. Retrieved from: <https://www.xarvio.com/en/Field-Manager>

^{xiv} The Climate Corporation. *Partners*. Retrieved from: <https://climate.com/partners>

^{xv} AgFunder (2018, February 16). Checking In With Climate Corp's Open Platform Strategy and the Future of Ag Data. *Successful Farming*. Retrieved from: <https://www.agriculture.com/news/technology/checking-in-with-climate-corps-open-platform-strategy-and-the-future-of-ag-data>

^{xvi} *Id* at xiii.

^{xvii} Welshans, K. (2018, April 5). Monsanto delivers solid Q2 2018 results. *Feedstuffs*. Retrieved from: <https://www.feedstuffs.com/news/monsanto-delivers-solid-q2-2018-results>

^{xviii} Schrimpf, P. (2018, January 8). Rebate Requirement Reveals the Dark Side of FieldView. *CropLife*. Retrieved from: <https://www.croplife.com/editorial/the-fieldview-dilemma/>

^{xix} The Climate Corporation (2018). *Privacy Policy*. Retrieved from: <https://climate.com/legal/privacy-policy>

^{xx} *Id* at xvii.

^{xxi} Khan, L.(2013). Monsanto's scary new scheme: Why does it really want all this data?. *Salon*. Retrieved from https://www.salon.com/2013/12/29/monsantos_scary_new_scheme_why_does_it_really_want_all_this_data/

^{xxii} *Id* at xvii.